

Brief analysis of the SAB LES Estimates as compared to Observations for the 2001-2002 Snow Season.

The Great Lakes Lake-Effect Snow (LES) season started late this year but dramatically announced itself with a nearly week-long event. November and December averaged very warm (6+ degrees above normal at Buffalo) and thus effectively delaying the onset of LES events until the last week of 2001. Buffalo recorded the first November without snowfall. Much of the winter around the eastern Great Lakes continued above normal (mildest in 70 years) and aided in extending the snow season over the lakes until late March. And even though total LES events were nearly half of the previous snow season, SAB (Satellite Analysis Branch) contributed 26% more messages to it's NWS customers. The chart below shows some comparison data for the past three winters.

	# of LES Events Logged	SAB Message Sent for Event	SAB Estimates Sent for Event	SAB Graphical Estimates Sent	Total Graphics Sent	Total SAB Messages	Inclusive SAB-LES Dates
1999-2000	17	17	6	5	Unk	49	11/3 - 2/20
2000-2001	20	19	13	7	Unk	65	11/14 - 2/3
2001-2002	11	10	6	5	54	82	12/20 - 3/23

By far, the most significant LES event was the "Bald Eagle" storm of December 24, 2001 to January 1, 2002. This extended event dropped record snowfall in the Buffalo, NY area (2nd and 4th greatest 24 hour snowfalls) as well as significant snow east of Lake Ontario (over 10 feet!). This one event accounted for 57% (47/82) of SAB's messages and 63% (34/54) of SAB's graphic analysis' for the season. SAB sent out 47 messages, and estimates were 63% of observed off Lake Erie and 85% of observed off Lake Ontario...not bad considering the duration of the storm.

For all events that SAB estimated for and reliable observed amounts were also available (5 occurrences), SAB estimates averaged 70% of observed. This was virtually the same as the previous year.

Lake Effect Storm Comparisons - Observed/SAB - 2001-2002 Winter Season

Lake Effect Storm Event	Date(s)	Location (east of...)	SAB Msgs	SAB Graphics	Observed Max	Est'd Total from Satellite	% of Obs'd	Time (z)	SAB Est'd Max (1 st Period)	Time(z)	SAB Es'd Max (2 nd Period)	Comments and Notes
Albatross	12/20-21/01	Erie	0		11"							
		Ontario	0		24"							
Bald Eagle	12/24/01 - 1/1/02	Erie	10	6 (24-25) 28(27-1)	81.6"	62.7"	77%					Erie County from 12/24-12/29 and 12/31-1/1
								241415-252115Z	25.0			Erie County,NY
								252345-271445Z	17.8			"
								281345-290845Z	13.9			"
								"	22.7			Chautauqua County,NY
								291315-301215Z	21.3			S. Erie County, PA
								"	15.5			Chautauqua County
								301215-310515Z	18.5			S. Erie County, NY
								"	17.5			Chautauqua County
								311315-011045z	5.7			S. Erie County, NY
								"	5.0			Chautauqua County
		Ontario	4		127.0"	85.1"	67%					N. Oswego County (28th-1st)
								241415-252115Z	10.1			Jefferson County
								252345-271445Z	10.0			"

[illegible]

Dove	3/3-5/02	Erie	2	9	23"	~18.9"	82%	040545-041145Z	7"	041145-051145Z	16.9"	Chautauqua County (Interpolated)
										“	18.0"	Erie County
		Ontario			14"	18.2"	130%	040545-041145Z	6"	041145-051145Z	12.2"	S.W. Oswego County
		Both Lakes	10									
Egret	3/10-11/02	Erie		1	8"	7"	88%	102345-110400Z				
		Ontario	1		11"	7"	64%	“				
		Both Lakes	1									
No Name	3/21/02	Michigan	1		Unk							2"/hr snow rate
Falcon	3/21-23/02	Erie	0	5	14"	2"	14%	221445-230345Z				
		Ontario	4		28"	15"	54%	“				

Notes: